IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Verleysen

Serial No.: 10/589,306

Confirmation No.: 6502

Filed: April 9, 2007

For: Method and Apparatus for

Controlling the Recovery of Solid Polyolefin From a Continuous

Reaction Zone

Mail Stop Appeal Brief-Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Honorable Commissioner:

§ Atty. Dkt. No.: F-902

Group Art Unit: 1796

Cust. No.: 25264

Examiner: Lu

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I hereby certify that this correspondence is being deposited on the date below with the United States Patent Office via the EFS-Web jervice.

3/21/09

Signature

TRANSMITTAL LETTER

In connection with the above identified application, Applicants respectfully resubmit the following in response to the Notice of Non-Compliant Appeal Brief dated March 9, 2009:

1. Pages 2-3 of Appeal Brief.

Respectfully submitted,

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directly affect, be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of Claims

Claims 1-6 were originally filed in the application. Claims 1-6 were cancelled and claims 7-12 were added in a Preliminary Amendment. Claims 7-8 were cancelled and claim 13 was added in Response to an Office Action dated November 1, 2007. Claims 9-12 were cancelled and claims 14-16 were added in Response to an Office Action dated April 1, 2008. Accordingly, claims 13-16 are pending in the application and stand rejected under 35 U.S.C. §103(a). The rejection of the pending claims is appealed. The pending claims are shown in the attached Appendix A.

Status of Amendments

No amendments have been made to the pending claims in response to the Final Office Action.

Summary of Claimed Subject Matter

Independent claim 13 recites a method for operating an olefin polymerization loop reactor system comprising introducing an olefin, a polymerization catalyst, and a diluent carrier liquid into a loop reactor, wherein the loop reactor comprises a circulating pump, a settling leg and a 180° rotating product take-off valve operably connected to the settling leg for the removal of polymer therefrom, contacting the olefin with the polymerization catalyst in the presence of the diluent carrier liquid to form a slurry of polymer particles within the loop reactor and withdrawing polymer particles from the settling leg through the 180° rotating take-off valve, wherein the polymer particles are withdrawn from the settling leg at a predetermined time interval, the predetermined time interval adapted to provide for removal of substantially all polymer particles from the settling leg with substantially no removal of olefin and diluent from the loop reactor and maintaining the predetermined time interval by automatically controlling and adjusting air flow passing to the 180° rotating take-off valve for operation thereof, wherein the predetermined time interval is automatically controlled by a pneumatically driven double-

acting actuator. See, Specification, at least page 1, line 25 to page 2, line 4 and page 2, line 13.

Independent claim 14 recites a polymerization process comprising polymerizing olefin monomer in a liquid diluent to produce a liquid slurry containing polymer particles within a loop reactor, wherein the loop reactor is operably connected to a first end of a settling leg, allowing the polymer particles to settle in the settling leg, periodically opening a 180 degree rotating product take-off valve disposed at a second end of the settling leg to withdraw the polymer particles from the settling leg, wherein the product take-off valve is operated by a pneumatically driven double-acting actuator and the pneumatically driven double-acting actuator is regulated by a system comprising pneumatic control valves. *See*, Specification, at least page 1, line 25 to page 2, line 4 and page 2, line 13.

Grounds of Rejection to be Reviewed on Appeal

The rejection of claims 13-16 under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 5,183,866 (*Hottovy*) in view of U.S. Pat. No. 5,455,314 (*Burns*) and U.S. Pat. No. 5,462,998 (*Tanifuji*).

Arguments

THE EXAMINER ERRED IN REJECTING CLAIMS 13-16 UNDER 35 U.S.C. §103(a) AS BEING UNPATENTABLE OVER HOTTOVY IN VIEW OF BURNS AND TANIFUJI.

Hottovy teaches a polymerization process wherein polymer solids accumulate in a settling leg provided with a product take off (PTO) valve. See, column 2, lines 45-50. The PTO valve has a port opening into an elongated confined zone having a flash line heater and connected to a flash tank. See, Id. Hottovy discovered that by restricting flow in the elongated confined zone (i.e., flow time of the charge of slurry in the elongated confined zone is equal to at least about 25% of the time between the closing of the PTO valve and the next opening of the PTO valve), smaller diameter flash line heaters can be used. See, column 2, line to column 3, line 7. However, Hottovy does not teach, show or suggest the critical features of the pending claims. Specifically, Hottovy does not teach,